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EXAMINER

KOCH, GEORGE R

ART UNIT

PAPER NUMBER

1734

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/699,422

Applicant(s)

MISTER ET AL.

Examiner

George R. Koch III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 24-33 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,6,7,10,11,13,14,27,28,32 and 33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,8,9,12,15-17,24-26 and 29-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/17/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of groups I, and species a and d in the reply filed on 10/27/2004 is acknowledged.
2. Out of the original claims, claims 1, 2, 5, 8, 9, 12, 15, 16, and 17 are elected.
3. Applicant has submitted new claims 24-33. The election will be applied to the claims as follows.
4. In claim 24 and 29, only the controller configuration in section "a" of the claim is elected and will be examined, as this corresponds to the species group I(a).
5. In claims 25, 26, 30 and 31, only the proximity sensor is elected and will be examined, as this corresponds to the species in group II(d).
6. Newly submitted claims 27-28 and 32-33 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claims 27-28 and 32-33 are directed towards a new species of control system which would fall under species group I as new species g: wherein the controller is configured to perform EACH of the three claimed controlling steps. See the prior office action for the appropriate citations for the basis of a species requirement.

Since applicant has already made an election for species a, species g is considered non-elected. Accordingly, claims 27-28 and 32-33 withdrawn from consideration as being directed to a non-elected invention.

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7. An action follows on claims 1, 2, 5, 8, 9, 12, 15, 16, 17, and the first species in each of claims 24-26 and 29-31.

Claim Objections

8. Applicant is advised that should claim 2 be found allowable, claim 24 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Claim 2 is substantially identical to the first, elected, alternative in claim 24.

9. Applicant is advised that should claim 5 be found allowable, claim 26 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Claim 5 is substantially identical to the first Markush group element in elected in claim 24.

10. Applicant is advised that should claim 9 be found allowable, claim 29 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing

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one claim to object to the other as being a substantial duplicate of the allowed claim.

See MPEP § 706.03(k). Claim 9 is substantially identical to the first, elected, alternative in claim 29.

11. Applicant is advised that should claim 12 be found allowable, claim 31 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Claim 12 is substantially identical to the first Markush group element in elected in claim 31.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Heaney (US Patent 4,722,168).

As to claim 1, Heaney discloses an apparatus for monitoring the operation of a heating device at least one heating element (items 17 and 18) moving periodically along a predefined path (the rotational path of the sealing head), the apparatus comprising a first sensor (position resolver 47) configured to sense the presence of the heating

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element, a second sensor (temperature sensors 66) configured to sense a temperature associated with the heating element, and a controller coupled with the first and second sensors and configured to monitor the first and second sensors and to perform a control function in response to the temperature sensed by the second sensor (see Figures 2, 3a-d, and especially column 5, lines 6-13).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

16. Claims 1, 2, 8, 9, 24, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pruett (US Patent 5,678,390) in view of Heaney (US Patent 4,722,168).

Pruett discloses an apparatus for monitoring the operation of a heating device at least one heating element (items 32 and 36) moving periodically along a predefined

path (the rotational path of the sealing head), the apparatus comprising a second sensor (temperature sensors 59 and 63) configured to sense a temperature associated with the heating element, and a controller coupled with the second sensor and configured to monitor the second sensor and to perform a control function in response to the temperature sensed by the second sensor (see Figures 7a-e).

Pruett does not disclose a first sensor (position resolver 47) configured to sense the presence of the heating element, or that the controller interacts based on first sensor information.

Heaney discloses a first sensor (position resolver 47) configured to sense the presence of the heating element in the context of a measuring system that also includes temperature sensor and a controller that reacts in response to both first and second sensors. One in the art would immediately appreciate that such a presence sensor would enable control of the positioning and registration of the heating element relative to the substrate, and would thus improve final product quality. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized a position sensor as in Heaney in order to improve the quality of the final production.

As to claim 2, Pruett discloses that the controller is configured to indicate when the temperature sensed by the second sensor deviates from a predetermined temperature range (see Figure 7b, especially steps 116 through 128).

As to claim 8, Pruett discloses an apparatus sealing bags filled with articles, comprising a sealing station including a press plate (i.e., a crimp mechanism - see abstract) and at least one heating element proximate the press plate and configured to move in a periodic motion relative to the press plate, a conveyor (item 11, Figure 1) adapted to transport a bag from the bag fill machine to the sealing station, a sealing station monitor comprising a second sensor (temperature sensors 59 and 63) configured to sense a temperature associated with the heating element, and a controller coupled with the second sensor and configured to monitor the second sensor and to perform a control function in response to the temperature sensed by the second sensor (see Figures 7a-e).

Pruett does not disclose a first sensor (position resolver 47) configured to sense the presence of the heating element, or that the controller interacts based on first sensor information.

Heaney discloses a first sensor (position resolver 47) configured to sense the presence of the heating element in the context of a measuring system that also includes temperature sensor and a controller that reacts in response to both first and second sensors. One in the art would immediately appreciate that such a presence sensor would enable control of the positioning and registration of the heating element relative to the substrate, and would thus improve final product quality. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized a position sensor as in Heaney in order to improve the quality of the final production.

As to claim 9, Pruett discloses that the controller is configured to indicate when the temperature sensed by the second sensor deviates from a predetermined temperature range (see Figure 7b, especially steps 116 through 128).

As to claim 24, Pruett discloses that the controller is configured to indicate when the temperature sensed by the second sensor deviates from a predetermined temperature range (see Figure 7b, especially steps 116 through 128).

As to claim 29, Pruett discloses that the controller is configured to indicate when the temperature sensed by the second sensor deviates from a predetermined temperature range (see Figure 7b, especially steps 116 through 128).

17. Claim 5, 12, 15-17, 25, 26, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pruett and Heaney as applied to claims 1, 8, 24, 27, 29 and 32 above, and further in view of Gustafsson (US patent 6,035,604).

Pruett as modified by Heaney disclose all of the limitations of claim 1 above.

As to claims 5, 12, 25, 26, 30, and 31, Heaney, as incorporated into Pruett, discloses a position encoder, but does not go into detail as to the encoder.

Gustafsson discloses using a proximity sensor (described in column 6, lines 27-48). Gustafsson discloses that the proximity sensor ensures a quality seal formation by ensuring that the sealing components are properly lined up (for example, see the function of the circuit in column 6, line 56 to column 7, line 13). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such proximity sensors in order to achieve proper seal formation.

As to claims 15-17, Pruett and Heaney utilize a roller for the heat sealing element, rather than a belt. However, Gutsafsson discloses that the heating elements are disposed on a chain conveyor, i.e., a rotating endless belt. Furthermore, one in the art would immediately recognize that such a belt enables a longer heating element "contact time", and thus a corresponding lower temperature for the heating element, resulting in reduced risk of burning of the packaging material. Additional, as a separate motivation, one in the art would also appreciate that a belt enables a "flat", extended contact of the sealing element with the packaging material, thus enabling a better seal formation. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilize a belt in order to both reduce the risk of burning the packaging or sealing material, and to improve seal formation.

Furthermore, as to claims 16, the heating blocks in Heaney disclose that it is known to seal an individual bag in a revolution.

As to claim 17, Pruett and Gutsafsson disclose that the heater elements seal a bag in the form of a web or tub at the desired intervals.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-866-377-8642 and

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giving the operator the above TDD number. The examiner can normally be reached on M-Th 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


George R. Koch III
Patent Examiner
Art Unit 1734

GRK
12/29/2004